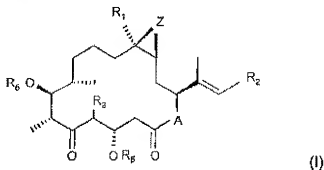


Amendments to the Claims:

Listing of Claims:

Claim 1 -10 Cancelled.

Claim 11 (previously presented): A process for the preparation of an epothilone of formula I,



wherein

A represents O or NR₇[[,]];

R₁ is hydrogen or lower alkyl which is unsubstituted or substituted by hydroxy, lower acyloxy, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino or lower acyl amino[[,]];

R₂ is unsubstituted or substituted heteroaryl having at least one nitrogen atom[[,]];

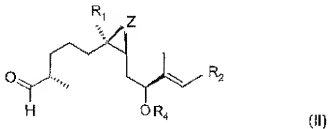
R₃ represents hydrogen or lower alkyl[[,]];

R₅ and R₆ are hydrogen[[,]]; and

R₇ is hydrogen or lower alkyl[[,]]; and

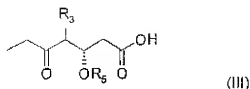
Z is O or a bond[[,]]; or a pharmaceutically acceptable salt thereof; comprising the steps of:

(a) reacting an aldehyde of formula II

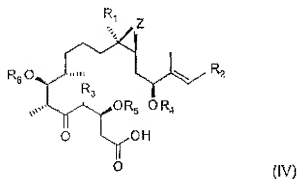


wherein R₁, R₂ and Z have the meanings as provided above for a compound of formula I and

R₄ is a protecting group, with an ethylketone of formula III,



wherein R_5 is H or a protecting group different or identical to R_4 and R_3 has the meaning as provided above for a compound of formula I, to provide the aldol of formula IV,



wherein R_1 , R_2 , R_3 and Z have the meanings as provided above for a compound of formula I,

R_4 a protecting group, R_5 is H or a protecting group different or identical to R_4 and R_6 is hydrogen[,,,]

(b) reacting the aldol of formula IV with a reagent capable to introduce a protecting group which is different or identical to R_4 furnishing a carboxylic acid of formula IV,

wherein R_1 , R_2 , R_3 and Z have the meanings as provided above for a compound of formula I,

R_4 a protecting group and R_5 is H or R_5 and R_6 are protecting groups different or identical to R_4 [,,,];

(c) reacting the carboxylic acid of formula IV with a reagent capable to remove the protecting group R_4 under conditions which do not result in the removal of the protecting groups R_5 and R_6 providing a carboxylic acid of formula IV,

wherein R_1 , R_2 , R_3 and Z have the meanings as provided above for a compound of formula I,

R_4 is hydrogen and R_5 is H or R_5 is H or R_5 and R_6 are protecting groups,

(d) macrolactonizing the carboxylic acid of formula IV providing the epothilone of formula I,

wherein R_1 , R_2 , R_3 and Z have the meanings as provided above for a compound of formula I,

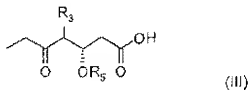
A is O and R_5 is H or R_5 and R_6 are protecting groups[,,,];

(e) reacting the epothilone of formula I with a reagent capable of removing the protecting groups R_5 and R_6 furnishing an epothilone of formula I,

wherein R₁, R₂, R₃, R₅, R₆ and Z have the meanings as provided above for a compound of formula I and A is O[₁]; and

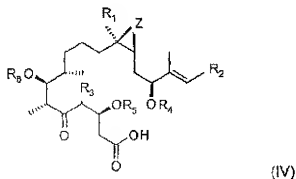
(f) optionally reacting the epothilone of formula I into an epothilone of formula I wherein R₁, R₂, R₃, R₅, R₆ and Z have the meanings as provided above for a compound of formula I and A is NR₇, wherein R₇ is hydrogen or lower alkyl.

Claim 12 (original): An ethylketone of formula III,



wherein R₃ has the meaning as provided above for a compound of formula I and R₅ is hydrogen or a protecting group.

Claim 13 (previously presented): An aldol of formula IV,



R₁ is hydrogen or lower alkyl which is unsubstituted or substituted by hydroxy, lower acyloxy,

lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino, lower acyl amino,

R₂ is unsubstituted or substituted heteroaryl[₁];

R₃ represents hydrogen or lower alkyl[₁];

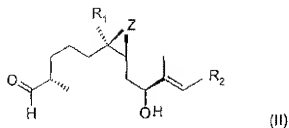
R₄ is hydrogen or a protecting group[₁];

R₅ is a protecting group different or identical to R₄[₁];

R₆ is hydrogen or a protecting group different or identical to R₄[₁]; and

Z is O or a bond.

Claim 14 (previously presented): A process for the preparation of an aldehyde of formula II



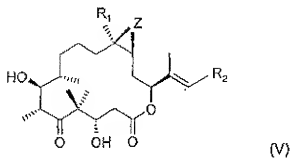
wherein

R₁ is hydrogen or lower alkyl which is unsubstituted or substituted by hydroxy, lower acyloxy, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino, lower acyl amino[[]];

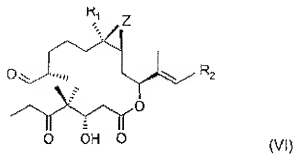
R₂ is unsubstituted or substituted heteroaryl[[]];

Z is O or a bond[[]]; comprising the steps of:

(a) reacting an epothilone of formula V



wherein the radicals R₁, R₂ and Z have the meanings as provided for a compound of formula II above, with a reagent effecting a retro-aldol reaction furnishing an ester of formula VI



wherein the radicals R₁, R₂ and Z have the meanings as provided for a compound of formula II above, which ester is hydrolyzed in a second step into its components, 4,4-dimethyl-3-hydroxy-5 oxo-heptanoic acid and the aldehyde of formula II as defined above.

Claims 15-22 Cancelled.